BLOME INTERNATIONAL

Surrounding You with Exceptional Protection

CHEMICAL PROOFING SYSTEMS

CP-29C
High Temperature Carbon Filled Furan Mortar

PRODUCT DESCRIPTION

Blome CP-29C is a uniquely formulated, two-component, high temperature, 100% carbon filled furan mortar used for the installation of chemical resistant brick and tile. Blome CP-29C exhibits superior properties in high temperature process conditions and optimum chemical resistance at elevated temperatures. CP-29C is designed for bonding acid brick and tile in tank, floor and trench applications requiring resistance to non-oxidizing acids, alkalis and solvents. Blome CP-29C is 100% carbon filled and exhibits exceptional resistance to hydrofluoric acid, fluoride salts and hot caustics, as well as aggressive chlorinated solvents, all at elevated temperatures. CP-29C exhibits exceptional bond strength to acid brick and is well suited for applications exposed to impact and mechanical abuse.

TYPICAL USES

Blome CP-29C is suitable for bonding chemical and abrasion resistant masonry units in a variety of applications including:

Acid brick lined leach tanks and digesters
Masonry linings for metallurgical autoclaves
Carbon brick linings for digesters and attack tanks
Hot gas inlet zones in absorbers and quench towers
Spent acid storage tanks

HANDLING CHARACTERISTICS

Blome CP-29C is formulated to provide excellent trowelling and handling characteristics, with sufficient body and thixotropy to butter brick in place and secure them from slipping or sliding while the mortar cures. CP-29C cures rapidly and provides an excellent bond to brick and tile. This combination of handling and curing properties produces excellent results on horizontal and vertical installations.

TYPICAL PROPERTIES

WET

Components:	Two (2) - powder & resin
Wet mortar density:	95 lbs./ft^3
Mixed consistency:	Creamy mortar
Pot life:	50°F 60 minutes
	77°F 30 minutes
Initial set:	50°F 12 - 16 hours
	77°F 4 - 6 hours
Final cure	50°F 9 days minimum
	77°F 7 days minimum

CURED

Blome CP-29C complies with ASTM C-395	
Absorption (ASTM C-413)	less than 0.2%
Bond Strength to brick (Blome test - brick failure)	900 psi
Coefficient of Thermal Expansion (ASTM C-531)	14 x 10^{-6} in/in/^{o}F
Color	Black
Compressive Strength (ASTM C-579)	5,500 psi
Recommended pH for use	0.0 – 14.0
Temperature limit	425°F constant
	480°F excursions
Tensile Strength (ASTM C-307)	1,000 psi

PACKAGING & STORAGE

Blome CP-29C is supplied as a two component product, with a filler powder and a resin. CP-29C Powder (Part A) is packaged in 50 lb. Bags and CP-29 Resin (Part B) is packaged in 50 lb. Pails or 500 lb. Drums. The use ratio of Powder to Resin is 2.0 pbw to 1.0 pbw.

Unit Size	150 lbs.
Powder	100 lbs. (2 x 50 lb. Bags)
Resin	50 lbs. (1 x 50 lb. Pails)

Shelf life of CP-29C Components is one (1) year. Keep CP-29C Powder and Resin tightly sealed in original containers until ready for use. Store Powder and Resin in a cool, dry place, out of direct sunlight, and on pallets at temperatures between 50 - 90°F. Protect bags of CP-29C Powder from water and weather while in storage and on jobsite.

ESTIMATED COVERAGE

Please refer to Blome Brick Mortar Usage Chart in Chemical Proofing Section of Blome International Catalog. This chart gives estimated coverage rates and does not allow for waste, joint variations or other jobsite contingencies.

BID SPECIFICATION GUIDE

Use Blome CP-29C High Temperature 100% Carbon Filled Furan Mortar as manufactured by Blome International, O'Fallon, MO USA

JOB SITE ENVIRONMENTAL CONDITIONS

Blome CP-29C must be applied while ambient temperatures are between 50°F and 90°F. Blome CP-29C components, brick, tile and substrate temperatures must also be maintained in this range. Installations of CP-29C should be protected from water and weather during installation and curing.

SURFACE PREPARATION

Brick and tile to be installed with Blome CP-29C must be clean, dry and oil free. If brick or tile has been frozen, they must be thawed completely and allowed to dry prior to installation with Blome CP-29C. Liquid or Sheet applied membrane surfaces should be clean and dry prior to installation of Blome CP-29C bed joint. These surfaces should be swept clean and be free of dirt, dust, water or other jobsite contaminants.

While Blome CP-29C provides exceptional bond to brick and tile surfaces, the material provides only a minimal bond to concrete and steel substrates. Therefore, concrete and steel substrates are best treated using an appropriate primer or membrane system prior to installation of brick or tile with Blome CP-29C. Direct bond applications typically require the use of an epoxy setting bed or mortar for bonding brick or tile directly to concrete or steel substrates.

SAFETY PRECAUTIONS

Blome CP-29C Powder, Resin and mixes of them present various health hazards if handled improperly. CP-29C Powder contains carbon and acid powders and CP-29 Resin will cause eye injury and irritate skin. Wear respirator suitable for carbon and acid powders, safety glasses with side shields, gloves and long sleeve shirts to prevent all contact with skin and eyes. After working with Blome CP-29C, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome CP-29C is best mixed with a KOL, pail type mixer or in a pail using a drill motor driven paddle blade. This mixing equipment must be clean, dry and free of any contaminants including Portland Cement, other mortars, resins, etc. When mixed, CP-29C is applied to brick, tile & substrate with a pointing or margin trowel.

MIXING AND APPLICATION

Add approximately 2.0 parts by weight CP-29C Powder to 1.0 part by weight CP-29 Resin. Mix components using a clean, dry mechanical mixer or trowel for a minimum of 2-3 minutes, making sure there are no lumps or dry pockets of powder. Using a clean, dry pointing or margin trowel, butter brick or tile evenly on 4 or 5 sides. Slide buttered brick or tile into place squeezing excess mortar from joints and striking off. Maximum mortar joint thickness should be 1/8”.

CLEANUP

All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using a citrus or biodegradable cleanser, with hot water, while material is still wet. If material begins to cure, solvent based cleaners will be required for removal.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANT ABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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